Lessard-Sams Outdoor Heritage Council

Laws of Minnesota 2021 Accomplishment Plan

General Information

Date: 07/06/2021

Project Title: Minnesota Trout Unlimited Coldwater Fish Habitat Enhancement and Restoration, Phase 13

Funds Recommended: $1,033,000

Legislative Citation: ML 2021, First Sp. Session, Ch. 1, Art. 1, Sec. 2, subd. 5(j)

Appropriation Language: $1,033,000 the first year is to the commissioner of natural resources for an agreement with Trout Unlimited to restore and enhance habitat for trout and other species in and along coldwater rivers, lakes, and streams in Minnesota. A list of proposed land restorations and enhancements must be provided as part of the required accomplishment plan.

Manager Information

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Location Information

County Location(s): Dakota, St. Louis, Lake, Cook, Fillmore, Goodhue and Wabasha.

Eco regions in which work will take place:

- Northern Forest
- Metro / Urban
- Southeast Forest

Activity types:

- Enhance

Priority resources addressed by activity:

- Forest
- Habitat

Narrative

Abstract

Minnesota Trout Unlimited will enhance and restore degraded habitat for fish and wildlife in and along priority coldwater streams located on existing public lands and conservation easements. Trout streams are a relatively scarce resource. Increasing threats to them require accelerating habitat work to reduce the backlog of degraded stream reaches, improve riparian forests to improve stream flows and temperatures, and buffer streams from larger, more frequent rainfall and flood events. Outcomes will be maximized by improving the connectivity of habitat and fish and wildlife populations. Timely maintenance of old projects will ensure habitat outcomes continue for many years.

Design and Scope of Work

Only six percent of Minnesota's streams support any trout, and many have degraded habitat which severely limits their productivity. Even where riparian corridors protect streams from future harm, past habitat degradation cannot be reversed without active enhancement or restoration. Minnesota Trout Unlimited ("MNTU") will directly enhance or restore degraded habitat on priority streams with existing protections under the Aquatic Management Area system or other public ownership. We propose to enhance habitat in and along these public waters (in these counties) as funding permits:

1. Keene Creek (St. Louis);
2. Split Rock River (Lake);
3. Baptism River (Lake);
4. Cook County Trout Stream (Cook);
5. Southeast MN streams (maintenance in numerous counties);
6. Mill Creek (Fillmore);
7. Gilbert Creek (Wabasha); and
8. Metro and outstate streams (statewide).

Reduced funding from our original request means several projects will not be implemented unless significant contracting efficiencies or leveraged funding stretches Outdoor Heritage Fund dollars. We propose to focus initially on the Split Rock River, Keene Creek (design and permitting only), Gilbert Creek, and smaller maintenance and vegetation management projects. Work on the other streams will be done if we leverage significant funding.

Individual project descriptions are provided in an attachment.

Goals and scope of work:

The goals of projects are to increase the carrying capacity and trout population of the stream, increase angling access and participation, improve water quality, and provide other benefits to aquatic and terrestrial wildlife. Each project will accomplish one or more of these objectives: (a) increase adult trout abundance, (b) reduce stream bank erosion and associated sedimentation downstream, (c) reconnect the stream to its floodplains to reduce negative impacts from severe flooding, (d) increase natural reproduction of trout and other aquatic organisms, (e) increase habitat for invertebrates and non-game species, (f) improve connectivity of habitat along aquatic and

riparian (terrestrial) corridors, (g) improve riparian forest health and function, (h) improve angler access and participation, and (i) protect productive trout waters from invasive species. The scope of work and methods utilized vary by project site conditions and are discussed in the individual project descriptions provided in the attachment.

How priorities were set:

MNTU focuses habitat enhancement and restoration efforts on those watersheds likely to continue to support viable, fishable populations of naturally reproducing trout and steelhead fifty years and more from now. Work is done only where degraded habitat is a limiting factor for a quality, sustainable fishery. Priority locations are determined using MNTU members' knowledge of watersheds, MNDNR management plans and surveys, other habitat and conservation planning efforts, consultations with MNDNR professionals, and science-based criteria. All things being equal, we consider the potential to draw new anglers outdoors, increase public awareness, engage landowners in conservation, foster partnerships, and increase public support for OHF projects.

Stakeholder support:

We continue receiving strong support from anglers, landowners, rural communities, and local civic and sporting organizations. We will continue gathering local input and developing partnerships in the planning and implementation stages. Landowners typically become very enthusiastic partners.

How does the plan address habitats that have significant value for wildlife species of greatest conservation need, and/or threatened or endangered species, and list targeted species?

The projects will restore or enhance degraded habitat for fish and wildlife in and along coldwater streams and rivers which historically supported naturally reproducing trout or steelhead populations highly valued by generations of anglers. While trout are the apex predator and key indicator species for the health of coldwater ecosystems, a host of rare aquatic and riparian species are uniquely associated with these systems. Well-functioning coldwater aquatic ecosystems are far fewer in number than the 6% of Minnesota's total stream and river miles which theoretically can still support trout. Even many streams considered to be the best remaining trout streams have badly degraded segments which disrupt connectivity and significantly impact the productivity and long-term resilience and sustainability of the overall trout population. Streams face growing threats from warming temperatures, increased frequency of severe flooding, and rising demand for groundwater extraction from the aquifers which supply inputs of vitally important cold water. The proposed projects are focused on streams and stream segments which will benefit from improved connectivity and help ensure Minnesota retains at least some high quality coldwater fisheries for future generations. A portion of an appropriation would be used to maintain or add enhancements to past projects to ensure continuing habitat benefits.

Describe how the plan uses science-based targeting that leverages or expands corridors and complexes, reduces fragmentation or protects areas identified in the MN County Biological Survey:

In selecting project sites, MNTU reviews MNDNR watershed specific fisheries management plans and other conservation planning efforts, consults with MNDNR professionals, and applies ranking criteria developed by the MNDNR. Projects must have the potential to increase the carrying capacity (fish numbers), the streams have natural reproduction, and the public have access to them. Improving the connectivity of good aquatic and riparian habitat is an important consideration and the projects are selected to expand or connect gaps in these corridors. We are increasingly targeting stream segments which build off earlier habitat or protection work in the same stream or connected watershed. Targeted work improving forest habitat in connected corridors along the Split

Rock River will benefit not only trout and steelhead fisheries, but numerous wildlife populations and native plant communities.

Which two sections of the Minnesota Statewide Conservation and Preservation Plan are most applicable to this project?

- H3 Improve connectivity and access to recreation
- H6 Protect and restore critical in-water habitat of lakes and streams

Which two other plans are addressed in this program?

- Driftless Area Restoration Effort
- Strategic Plan for Coldwater Resources Management in Southeastern Minnesota

Which LSOHC section priorities are addressed in this program?

Metro / Urban

- Enhance and restore coldwater fisheries systems

Northern Forest

- Protect shoreland and restore or enhance critical habitat on wild rice lakes, shallow lakes, cold water lakes, streams and rivers, and spawning areas

Southeast Forest

- Protect, enhance, and restore habitat for fish, game, and nongame wildlife in rivers, cold-water streams, and associated upland habitat

Does this program include leveraged funding?

Yes

Explain the leverage:

We will leverage private funding of Trout Unlimited, which Trout Unlimited will contribute to cover a majority of its direct support service costs. TU members and chapters will donate in-kind labor/services. Several partners (MNDNR, SWCD offices, etc.) will likely contribute significant amounts of time and/or dollars assisting on several projects. We also hope to leverage substantial federal and other funding, including federal NRCS funding on the southeast Minnesota projects, as well as funding for fish passage/culvert replacement work in the Lake Superior basin.

Per MS 97A.056, Subd. 24, Please explain whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.

The request is not supplanting or a substitution for previous funding. The work proposed for funding is for new or additional work.

How will you sustain and/or maintain this work after the Outdoor Heritage Funds are expended?

MNTU's coldwater aquatic habitat restoration and enhancement projects are designed for long-term ecological and hydraulic stability. Construction contracts include maintenance/warranty provisions to ensure habitat work is well established. After this period and once riparian vegetation is well established, major maintenance work is not typically required in order to sustain the habitat outcomes for decades. Reconnected floodplains allow flood water

to quickly spread out and dissipate energy, reducing the destructive impact of a flood. Flood waters typically flatten streamside vegetation temporarily and do not damage the in-stream structures. The tenfold increase in trout populations and threefold increase in large trout which are common following completion of a southeast Minnesota project, are typically sustainable long-term through natural reproduction.

We anticipate that long-term monitoring of the integrity of the improvements will be done in conjunction with routine inspections and biological monitoring conducted by local MNDNR staff, MNTU members, and landowners as appropriate. This monitoring will not require separate OHF or other constitutional funding. In the event that there are other maintenance costs, potential sources of funding and volunteer labor include MNTU, MNDNR AMA maintenance funding, and other grant funds and organizations. MNTU volunteers will help provide long-term monitoring and periodic labor.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
One year after grant ends	MNTU volunteers or part of agency staff visits.	Inspect structural elements and vegetation.	If needed, alert DNR and develop action plans.	Conduct maintenance with volunteers and/or contractors if DNR does not.
Every 3 years thereafter	MNTU volunteers and/or agency.	Inspect structural elements and vegetation.	If needed, develop action plan with DNR.	Perform or assist DNR with maintenance if needed.

Activity Details

Requirements

If funded, this program will meet all applicable criteria set forth in MS 97A.056?
Yes

Will restoration and enhancement work follow best management practices including MS 84.973 Pollinator Habitat Program?
Yes

Is the restoration and enhancement activity on permanently protected land per 97A.056, Subd 13(f), tribal lands, and/or public waters per MS 103G.005, Subd. 15?
Yes

Where does the activity take place?

- AMA
- Permanently Protected Conservation Easements
- County/Municipal
- Public Waters
- State Forests
- Other : National Forest land

Land Use

Will there be planting of any crop on OHF land purchased or restored in this program?
No

Timeline

Activity Name	Estimated Completion Date
Begin planning, design and implementation of habitat enhancements.	July 2021
Complete implementation of habitat enhancements, including tree plantings and vegetation work.	June 2026

Date of Final Report Submission: 11/01/2026

Budget

Budget reallocations up to 10% do not require an amendment to the Accomplishment Plan.

Totals

Item	Funding Request	Antic. Leverage	Leverage Source	Total
Personnel	$73,000	-	-	$73,000
Contracts	$400,000	$40,000	USFWS, NRCS, SWCD, and/or DNR	$440,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	$9,000	-	-	$9,000
Professional Services	$220,000	-	-	$220,000
Direct Support Services	$20,000	$20,000	Trout Unlimited	$40,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	$4,000	-	-	$4,000
Supplies/Materials	$307,000	$40,000	USFWS, NRCS, SWCD, and/or DNR	$347,000
DNR IDP	-	-	-	-
Grand Total	**$1,033,000**	**$100,000**	**-**	**$1,133,000**

Personnel

Position	Annual FTE	Years Working	Funding Request	Antic. Leverage	Leverage Source	Total
Habitat Enhancement staff	0.5	5.0	$73,000	-	-	$73,000

Amount of Request: $1,033,000
Amount of Leverage: $100,000
Leverage as a percent of the Request: 9.68%
DSS + Personnel: $93,000
As a % of the total request: 9.0%
Easement Stewardship: -
As a % of the Easement Acquisition: -

How will this program accommodate the reduced appropriation recommendation from the original proposed requested amount?
The program includes several stand alone projects. Many will not be implemented and some will have their scope reduced to match available funding. If we succeed in leveraging significant additional non-OHF funding we will do more of the originally proposed individual projects.

Describe and explain leverage source and confirmation of funds:
Leverage estimates are estimates only. TU will contribute funding to cover much of its direct support service costs.

Members will donate in-kind labor. Partners will likely contribute time or dollars. Reduced funding means cutting most fish barrier removal and southeast MN work, which significantly reduces the chance of federal funding.

Personnel

Has funding for these positions been requested in the past?
Yes

> **Please explain the overlap of past and future staffing and position levels previously received and how that is coordinated over multiple years?**
> All staff code each hour they work to the particular OHF grant which funds the particular project worked on. The personnel costs in each OHF grant are estimates. Any unused dollars budgeted for personnel and travel in a given grant will be shifted into contracts and materials budget categories to do additional habitat work under that grant. We recently hired a staff person for southeast Minnesota to ensure all projects in the region are well implemented and maintained.

Contracts

What is included in the contracts line?
This is for contracted services on habitat enhancement construction projects, and includes heavy equipment use and other labor.

Travel

Does the amount in the travel line include equipment/vehicle rental?
No

Explain the amount in the travel line outside of traditional travel costs of mileage, food, and lodging
None.

I understand and agree that lodging, meals, and mileage must comply with the current MMB Commissioner Plan:
Yes

Direct Support Services

How did you determine which portions of the Direct Support Services of your shared support services is direct to this program?
The Direct Support Services requested represents a portion of TU's federal rate, which is approved annually. The requested amount likely represents approximately one half of what we would be eligible to claim based upon DNR approval under earlier grant agreements. TU is donating the other portion.

Other Equipment/Tools

Give examples of the types of Equipment and Tools that will be purchased?
These would be hand tools and possibly chain saws. Tools/equipment would be used by volunteers, staff and partners for hand labor.

Federal Funds

Do you anticipate federal funds as a match for this program?
No

Output Tables

Acres by Resource Type (Table 1)

Type	Wetland	Prairie	Forest	Habitat	Total Acres
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	300	50	350
Total	**-**	**-**	**300**	**50**	**350**

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	$460,000	$573,000	$1,033,000
Total	**-**	**-**	**$460,000**	**$573,000**	**$1,033,000**

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	7	-	43	-	300	350
Total	**7**	**-**	**43**	**-**	**300**	**350**

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	$10,000	-	$563,000	-	$460,000	$1,033,000
Total	**$10,000**	**-**	**$563,000**	**-**	**$460,000**	**$1,033,000**

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	-	-	$1,533	$11,460

Average Cost per Acre by Ecological Section (Table 6)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State	-	-	-	-	-

PILT Liability					
Protect in Easement	-	-	-	-	-
Enhance	$1,428	-	$13,093	-	$1,533

Target Lake/Stream/River Feet or Miles

5 miles

Outcomes

Programs in metropolitan urbanizing region:

- Improved aquatic habitat indicators ~ *Measured through surveys of fish, macro invertebrates and/or exposed substrates. Abundance, size structure and species diversity are considered.*

Programs in the northern forest region:

- Improved aquatic habitat indicators ~ *Measured through surveys of fish, macro invertebrates and/or exposed substrates. Abundance, size structure and species diversity are considered.*

Programs in southeast forest region:

- Rivers, streams, and surrounding vegetation provide corridors of habitat ~ *Enhancement of in-stream and riparian corridor habitat creates miles of connected habitat. Outcomes in aquatic life are measured through surveys of fish, macro invertebrates and/or exposed substrates. Abundance, size structure and species diversity are considered.*

Parcels

For restoration and enhancement programs ONLY: Managers may add, delete, and substitute projects on this parcel list based upon need, readiness, cost, opportunity, and/or urgency so long as the substitute parcel/project forwards the constitutional objectives of this program in the Project Scope table of this accomplishment plan. The final accomplishment plan report will include the final parcel list.

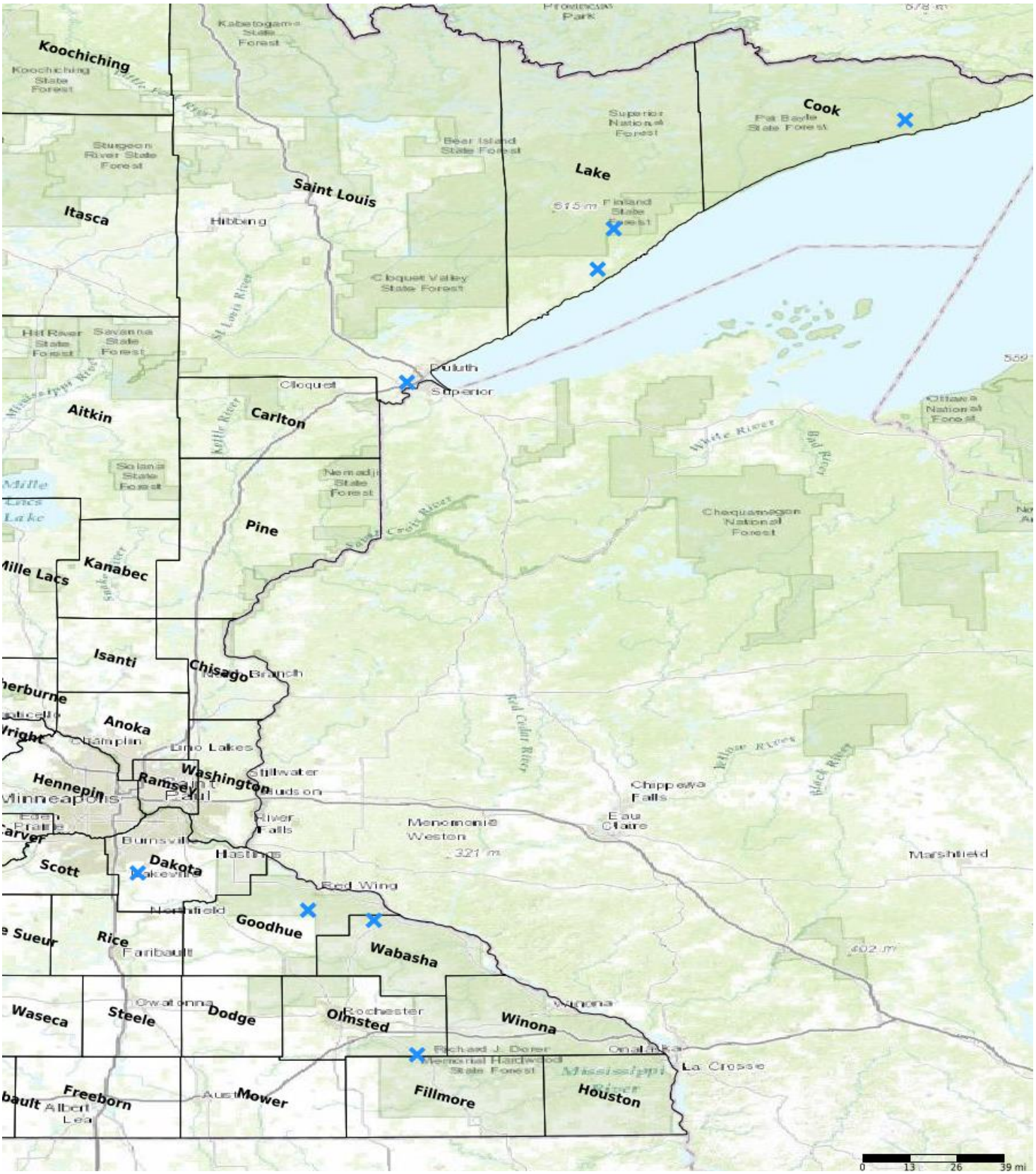
Parcel Information

Sign-up Criteria?
No

Explain the process used to identify, prioritize, and select the parcels on your list:
MNTU focuses habitat enhancement and restoration efforts on those watersheds likely to continue to support viable, fishable populations of naturally reproducing trout, steelhead, and salmon fifty years and more from now. Work is done only where degraded habitat is a limiting factor for a quality, sustainable fishery. Priority locations are determined using MNTU members' knowledge of watersheds, MNDNR management plans and surveys, other habitat and conservation planning efforts, consultations with MNDNR professionals, and science-based criteria.

Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Cook County trout stream	Cook	06202120	0	$0	Yes
Metro and outstate streams (prioritized)	Dakota	11420234	7	$0	Yes
Mill Creek	Fillmore	10511231	0	$0	Yes
Southeast Maintenance & Additional Enhancements	Goodhue	11215226	12	$0	Yes
Baptism River	Lake	05708229	0	$0	Yes
Split Rock River	Lake	05509226	300	$0	Yes
Keene Creek	St. Louis	04915212	0	$0	Yes
Gilbert Creek	Wabasha	11113211	7	$0	Yes



- Protect in Easement
- Protect in Fee with PILT
- Protect in Fee W/O PILT
- Restore
- Enhance
- Other

Parcel Map
Minnesota Trout Unlimited Coldwater Fish Habitat
Enhancement and Restoration, Phase 13
(Data Generated From Parcel List)